

CLAIMS

We claim:

1. An isolated polypeptide, comprising an amino acid sequence that is at least 70% identical to a reference amino acid sequence selected from the group consisting of: (a) amino acid residues 21 to 452 of SEQ ID NO:2, (b) amino acid residues 21 to 435 of SEQ ID NO:10, (c) amino acid residues 21 to 677 of SEQ ID NO:2, and (d) amino acid residues 1 to 692 of SEQ ID NO:2, wherein the isolated polypeptide specifically binds with an antibody that specifically binds with a polypeptide consisting of either the amino acid sequence of SEQ ID NO:2, or the amino acid sequence of SEQ ID NO:10.
2. The isolated polypeptide of claim 1, wherein the isolated polypeptide has an amino acid sequence that is at least 80% identical or at least 90% identical to the reference amino acid sequence.
3. The isolated polypeptide of claim 1, wherein the polypeptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:10, SEQ ID NO:11, and SEQ ID NO:12.
4. The isolated polypeptide of claim 1, comprising an extracellular domain, wherein the extracellular domain comprises either amino acid residues 21 to 452 of the amino acid sequence of SEQ ID NO:2 or amino acid residues 21 to 435 of the amino acid sequence of SEQ ID NO:10.
5. The isolated polypeptide of claim 4, wherein the polypeptide further comprises a transmembrane domain that resides in a carboxyl-terminal position relative to the extracellular domain, wherein the transmembrane domain comprises amino acid residues 453 to 473 of SEQ ID NO:2.
6. The isolated polypeptide of claim 5, wherein the polypeptide further comprises an intracellular domain that resides in a carboxyl-terminal position relative to the transmembrane domain, wherein the intracellular domain comprises either amino acid residues 474 to 677 of SEQ ID NO:2, or amino acid residues 457 to 673 of SEQ ID NO:10.
7. The isolated polypeptide of claim 6, wherein the polypeptide further comprises a signal secretory sequence that resides in an amino-terminal position relative to

the extracellular domain, wherein the signal secretory sequence comprises amino acid residues 1 to 20 of the amino acid sequence of SEQ ID NO:2.

8. An isolated nucleic acid molecule that encodes a Zcytor14 polypeptide, wherein the nucleic acid molecule is selected from the group consisting of: (a) a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:3, (b) a nucleic acid molecule encoding an amino acid sequence that comprises either amino acid residues 21 to 677 of SEQ ID NO:2 or amino acid residues 21 to 673 of SEQ ID NO:10, and (c) a nucleic acid molecule that remains hybridized following stringent wash conditions to a nucleic acid molecule comprising the nucleotide sequence of nucleotides 214 to 2184 of SEQ ID NO:1, or the complement of nucleotides 214 to 2184 of SEQ ID NO:1.

9. A vector, comprising the isolated nucleic acid molecule of claim 8.

10. An expression vector, comprising the isolated nucleic acid molecule of claim 8, wherein the nucleic acid molecule encodes an amino acid sequence comprising either amino acid residues 21 to 452 of SEQ ID NO:2 or amino acid residues 21 to 435 of SEQ ID NO:10, a transcription promoter, and a transcription terminator, wherein the promoter is operably linked with the nucleic acid molecule, and wherein the nucleic acid molecule is operably linked with the transcription terminator.

11. A recombinant virus, comprising the expression vector of claim 10.

12. A recombinant host cell comprising the expression vector of claim 10, wherein the host cell is selected from the group consisting of bacterium, yeast cell, fungal cell, insect cell, mammalian cell, and plant cell.

13. A method of using the expression vector of claim 10 to produce Zcytor14 protein, the method comprising the step of culturing recombinant host cells that comprise the expression vector and that produce the Zcytor14 protein.

14. An antibody or antibody fragment that specifically binds with the polypeptide of claim 1.

15. An anti-idiotypic antibody, or anti-idiotypic antibody fragment, that specifically binds with the antibody or antibody fragment of claim 14.

16. A composition, comprising a carrier and either the isolated polypeptide of claim 3, or at least one of an expression vector that comprises a nucleic acid molecule encoding the isolated polypeptide of claim 3 or a recombinant virus that comprises such an expression vector.

17. An isolated polypeptide consisting of either amino acid residues 21 to 452 of SEQ ID NO:2, or amino acid residues 21 to 435 of SEQ ID NO:10.

18. An antibody that specifically binds with the isolated polypeptide of claim 17.

19. An anti-idiotypic antibody that specifically binds with the antibody of claim 18.

20. A fusion protein, comprising the isolated polypeptide of claim 17 and an immunoglobulin moiety.